

## REMARKS

Claims 1-20 are pending in the present application. By this Amendment, the specification has been amended; previously presented claims 1-7 have been amended; and new claims 8-20 have been added. Applicants respectfully request reconsideration of the present claims in view of the foregoing amendment and the following remarks.

### I. Prior Art Rejections:

#### Rejection of Previously Presented Claims 3-4 Under 35 U.S.C. §102(b)

Previously presented claims 3-4 were rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 4,118,526 issued to Gregorian et al. (hereinafter, "Gregorian"). This rejection is respectfully traversed.

In order for the disclosure of Gregorian to anticipate Applicants' claimed invention, the disclosure of Gregorian must disclose each and every claim feature recited in the claims. See, for example, *Finnigan Corp. v. International Trade Commission*, 180 F.3d 1354, 1365, 51 USPQ2d 1001, 1009 (Fed. Cir. 1999), in which the Court stated "In order to establish anticipation, a prior art reference must disclose every feature of the claimed invention."

The disclosure of Gregorian fails to disclose, teach or suggest at least the following claim features:

- (1) a process for preparing a water- and oil-repellent, antistatic composition comprising the step of combining (i) at least one nonpolymeric ionic salt consisting of at least one cation and at least one anion, said cation being selected from the group consisting of monovalent metal cations, divalent metal cations, and organic onium cations, and said anion being a weakly coordinating anion selected from the group consisting of alkane sulfonates, aryl sulfonates, alkaryl sulfonates, tetraarylborates, carboranes, halogen-substituted carboranes, alkyl-substituted carboranes, haloalkyl-substituted carboranes, metallocarboranes, teflates, and fluoroorganic anions, the conjugate acid of said anion having an acidity greater than or equal to that of a hydrocarbon sulfonic acid, and with the proviso that said anion is organic or fluoroorganic when said cation is a metal, (ii)

- at least one fluorochemical repellent, and (iii) at least one thermosetting polymer or ceramer or the reactive precursors of said polymer or ceramer (independent claim 3); and
- (2) a process for preparing a water- and oil-repellent, antistatic composition comprising the step of applying a topical treatment composition to at least a portion of at least one surface of at least one insulating material, said topical treatment composition comprising (a) at least one nonpolymeric ionic salt consisting of at least one cation and at least one anion, said cation being selected from the group consisting of monovalent metal cations, divalent metal cations, and organic onium cations, and said anion being a weakly coordinating anion selected from the group consisting of alkane sulfonates, aryl sulfonates, alkaryl sulfonates, tetraarylborates, carboranes, halogen-substituted carboranes, alkyl-substituted carboranes, haloalkyl-substituted carboranes, metallocarboranes, teflates, and fluoroorganic anions, the conjugate acid of said anion having an acidity greater than or equal to that of a hydrocarbon sulfonic acid (independent claim 4).

Since the disclosure of Gregorian fails to disclose each and every claim feature recited in Applicants' independent claims 3 and 4, the disclosure of Gregorian cannot anticipate independent claims 3 and 4. Accordingly, withdrawal of this rejection is respectfully requested.

Rejection of Previously Presented Claims 1-2 Under 35 U.S.C. §103(a) in View of Oxenrider in Combination With Mueller

Previously presented claims 1-2 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 3,899,563 to Oxenrider et al. (hereinafter, "Oxenrider") in view of U.S. Patent No. 3,968,066 to Mueller (hereinafter, "Mueller"). This rejection is respectfully traversed.

The teaching of Oxenrider is directed to synthetic fibers formed from an extrudable melt comprising a polymer resin and a small amount of a fluorochemical to impart soil and stain repellency to the extruded fiber.

As noted by Examiner Poulos, the teaching of Oxenrider fails to disclose, teach or suggest the use of an ionic salt component, and especially the use of a nonpolymeric ionic salt as recited in claim 1. See, August 21, 2006 Office Action, page 3, line 20.

The teaching of Mueller is directed to a surface treatment for textile fibers. The disclosed surface treatment comprises a fluorochemical resin and specific quarternary ammonium salts in an aqueous solution or emulsion that is applied to textile fibers via pad baths or other known coating techniques. See, Mueller, column 2, line 5 to column 3, line 12, and column 13, lines 8-15.

The teaching of Mueller fails to disclose, teach or suggest a process in which the disclosed fluorochemical resin and/or the disclosed quarternary ammonium salt is melt processed in a polymeric melt so as to form a water- and oil-repellent, antistatic composition.

Examiner Poulos suggests that one skilled in the art, given the teaching of Oxenrider, would have (1) sought out the teaching of Mueller directed to a fiber surface treatment composition, (2) removed the quarternary ammonium salt from the fiber surface treatment composition disclosed in the teaching of Mueller, and then (3) incorporated the quarternary ammonium salt from Mueller's fiber surface treatment composition into or onto the synthetic fiber disclosed in the teaching of Oxenrider. See, page 3, line 21 to page 4, line 6 of the August 21, 2006 Office Action. Applicants disagree.

Applicants respectfully submit that there is no suggestion or motivation provided in the teaching of Oxenrider alone or in combination with the teaching of Mueller that would have lead one skilled in the art to seek out the teaching of Mueller, and then modify the disclosed fibers of Oxenrider as suggested by Examiner Poulos. There is no suggestion in the teaching of Oxenrider alone or in combination with the teaching of Mueller of the need or desire to modify the disclosed fibers of Oxenrider given that the disclosed fibers of Oxenrider already possess soil, oil and stain repellency due to the incorporation of a fluorochemical resin in the disclosed fibers. As stated by the Court in *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990), "The mere fact

that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. (In *Mills*, claims were directed to an apparatus for producing an aerated cementitious composition by drawing air into the cementitious composition by driving the output pump at a capacity greater than the feed rate. The prior art reference taught that the feed means can be run at a variable speed, however the court found that this does not require that the output pump be run at the claimed speed so that air is drawn into the mixing chamber and is entrained in the ingredients during operation. Although a prior art device "may be capable of being modified to run the way the apparatus is claimed, there must be a suggestion or motivation in the reference to do so." *Id.* at 682, 16 USPQ2d at 1432.). See also *In re Fritch*, 972 F.2d 1260, 23 USPQ2d 1780 (Fed. Cir. 1992).

It is respectfully submitted that one of ordinary skill in the art would not have sought out the teaching of Mueller, and then so modified the disclosed fibers of Oxenrider absent the impermissible use of hindsight. The only motivation for combining the teachings of Oxenrider and Mueller, as asserted by Examiner Poulos, has been gleaned from a review of Applicants' patent application, not from what is being taught or suggested by the cited art. For at least this reason, Applicants respectfully submit that the proposed combination of the teaching of Oxenrider with the teaching of Mueller is improper.

Applicants respectfully submit that the proposed combination of the teaching of Oxenrider with the teaching of Mueller, even if proper, would have lead one skilled in the art to apply a surface treatment composition to a given fiber (e.g., a natural fiber or a synthetic fiber) as disclosed in the teaching of Mueller instead of incorporating a fluorochemical resin into the fiber as disclosed in the teaching of Oxenrider. Further, Applicants respectfully submit that the proposed combination of the teaching of Oxenrider with the teaching of Mueller, if proper, would not have suggested to one skilled in the art a process comprising a melt processing step as disclosed in the teaching of Oxenrider in combination with a surface treatment step as disclosed in the teaching of Mueller as suggested by Examiner Poulos.

For at least the reasons given above, the proposed combination of the

teaching of Oxenrider and the teaching of Mueller fails to make obvious Applicants' claimed invention as recited in independent claim 1. Since claim 2 depends from independent claim 1 and recites additional claim features, the proposed combination of the teaching of Oxenrider and the teaching of Mueller fails to make obvious Applicants' claimed invention as recited in dependent claim 2. Accordingly, withdrawal of this rejection is respectfully requested.

Rejection of Previously Presented Claims 4-5 and 7 Under 35 U.S.C. §103(a) in View of Sherman in Combination With Mueller

Previously presented claims 4-5 and 7 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 4,043,964 to Sherman et al. (hereinafter, "Sherman") in view of Mueller. This rejection is respectfully traversed.

A description of the teaching of Mueller may be relied upon above. It should be noted that the teaching of Mueller fails to disclose, teach or suggest the use of nonpolymeric ionic salts consisting of at least one cation and at least one anion, the cation being selected from the group consisting of monovalent metal cations, divalent metal cations, and organic onium cations, and the anion being a weakly coordinating anion selected from the group consisting of alkane sulfonates, aryl sulfonates, alkaryl sulfonates, tetraarylborates, carboranes, halogen-substituted carboranes, alkyl-substituted carboranes, haloalkyl-substituted carboranes, metallocarboranes, teflates, and fluoroorganic anions in a process for preparing a water- and oil-repellent, antistatic composition as recited in independent claims 4 and 7.

Like the teaching of Mueller, the teaching of Sherman is directed to a surface treatment for textile fibers. The disclosed surface treatment comprises (i) a water-insoluble addition polymer derived from polymerizable ethylenically unsaturated monomers free of nonvinyllic fluorine, and (ii) a water-insoluble fluorinated component containing fluoroaliphatic radical of at least three carbon atoms. See, for example, Sherman, column 3, line 22 to column 4, line 31.

Like the teaching of Mueller, the teaching of Sherman fails to disclose, teach or suggest the use of nonpolymeric ionic salts consisting of at least one cation and at least one anion, the cation being selected from the group consisting of monovalent

metal cations, divalent metal cations, and organic onium cations, and the anion being a weakly coordinating anion selected from the group consisting of alkane sulfonates, aryl sulfonates, alkaryl sulfonates, tetraarylborates, carboranes, halogen-substituted carboranes, alkyl-substituted carboranes, haloalkyl-substituted carboranes, metallocarboranes, teflates, and fluoroorganic anions in a process for preparing a water- and oil-repellent, antistatic composition as recited in independent claims 4 and 7.

Examiner Poulos suggests that one skilled in the art, given the teaching of Sherman, would have (1) sought out the teaching of Mueller, (2) removed the quarternary ammonium salt from the fiber surface treatment composition disclosed in the teaching of Mueller, and then (3) incorporated the quarternary ammonium salt from Mueller's fiber surface treatment composition into the surface treatment composition disclosed in the teaching of Sherman. See, page 4, line 17 to page 5, line 5 of the August 21, 2006 Office Action. Applicants disagree.

Applicants respectfully submit that there is no suggestion or motivation provided in the teaching of Sherman alone or in combination with the teaching of Mueller that would have lead one skilled in the art to seek out the teaching of Mueller, and then modify the disclosed surface treatment composition of Sherman as suggested by Examiner Poulos. There is no suggestion in the teaching of Sherman alone or in combination with the teaching of Mueller of the need or desire to modify the disclosed surface treatment composition of Sherman.

Applicants respectfully submit that the proposed combination of the teaching of Sherman with the teaching of Mueller, even if proper, fails to make obvious Applicants' claimed invention as embodied in independent claims 4 and 7. As discussed above, each of the teaching of Sherman and the teaching of Mueller fails to disclose, teach or suggest the use of nonpolymeric ionic salts consisting of at least one cation and at least one anion, the cation being selected from the group consisting of monovalent metal cations, divalent metal cations, and organic onium cations, and the anion being a weakly coordinating anion selected from the group consisting of alkane sulfonates, aryl sulfonates, alkaryl sulfonates, tetraarylborates, carboranes, halogen-substituted carboranes, alkyl-substituted carboranes, haloalkyl-substituted carboranes,

metalloboranes, teflates, and fluoroorganic anions in a process for preparing a water- and oil-repellent, antistatic composition as recited in independent claims 4 and 7.

For at least the reasons given above, the proposed combination of the teaching of Sherman and the teaching of Mueller fails to make obvious Applicants' claimed invention as recited in independent claims 4 and 7. Since claim 5 depends from independent claim 4 and recites additional claim features, the proposed combination of the teaching of Sherman and the teaching of Mueller also fails to make obvious Applicants' claimed invention as recited in dependent claim 5. Accordingly, withdrawal of this rejection is respectfully requested.

Rejection of Previously Presented Claims 1-7 Under 35 U.S.C. §103(a) in View of Lamanna in Combination With Oxenrider

Previously presented claims 1-7 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,372,829 to Lamanna et al. (hereinafter, "Lamanna") in view of Oxenrider. This rejection is respectfully traversed.

U.S. Patent No. 6,372,829 (Lamanna) and the pending patent application were commonly owned by The 3M Company (St. Paul, MN) at the time of the invention of the pending patent application. Applicants can submit, if necessary, a §1.131 Declaration of inventor Thompson that establishes that the present patent application was conceived of prior to the filing date of U.S. Patent No. 6,372,829 (Lamanna). However, for at least the reasons given below, it is respectfully submitted that the proposed combination of the teaching of Lamanna with the teaching of Oxenrider fails to make obvious Applicants' claimed invention.

A description of the teaching of Oxenrider may be relied upon above.

The teaching of Lamanna is directed to antistatic compositions comprising (i) at least one ionic salt consisting of a nonpolymeric nitrogen onium cation and a weakly coordinating anion, the conjugate acid of the anion being a superacid, and (ii) at least one thermoplastic polymer.

As noted by Examiner Poulos, the teaching of Lamanna fails to disclose, teach or suggest the use of a fluorochemical repellant as recited in independent claims 1, 3-4 and 6-7. See, August 21, 2006 Office Action, page 6, line 6.

Examiner Poulos suggests that one skilled in the art, given the teaching of Lamanna, would have (1) sought out the teaching of Oxenrider directed to synthetic fibers formed from an extrudable melt comprising a polymer resin and a small amount of a fluorochemical, (2) removed the fluorochemical from the extrudable melt disclosed in the teaching of Oxenrider, and then (3) incorporated the fluorochemical from Oxenrider's extrudable melt into the antistatic composition disclosed in the teaching of Lamanna. See, page 3, line 21 to page 4, line 6 of the August 21, 2006 Office Action. Applicants disagree.

Applicants respectfully submit that there is no suggestion or motivation provided in the teaching of Lamanna alone or in combination with the teaching of Oxenrider that would have lead one skilled in the art to seek out the teaching of Oxenrider, and then modify the disclosed antistatic compositions of Lamanna as suggested by Examiner Poulos. There is no suggestion in the teaching of Lamanna alone or in combination with the teaching of Oxenrider of the need or desire to modify the disclosed antistatic compositions of Lamanna.

It is respectfully submitted that one of ordinary skill in the art would not have sought out the teaching of Oxenrider, and then modified the disclosed antistatic compositions of Lamanna absent the impermissible use of hindsight. The only motivation for combining the teachings of Lamanna and Oxenrider, as asserted by Examiner Poulos, has been gleaned from a review of Applicants' patent application, not from what is being taught or suggested by the cited art. For at least this reason, Applicants respectfully submit that the proposed combination of the teaching of Lamanna with the teaching of Oxenrider is improper.

For at least the reasons given above, the proposed combination of the teaching of Lamanna with the teaching of Oxenrider fails to make obvious Applicants' claimed invention as recited in independent claims 1, 3-4 and 6-7. Since claims 2 and 5 depend from independent claims 1 and 4 and recite additional claim features, the proposed combination of the teaching of Lamanna with the teaching of Oxenrider also fails to make obvious Applicants' claimed invention as recited in dependent claims 2 and 5. Accordingly, withdrawal of this rejection is respectfully requested.



**II. New Claims 8-20:**

New claims 8-20 are directed to various embodiments of the present invention. Support for new claims 8-20 may be found in at least the following locations of the original specification: page 26, lines 5-8, and page 26, line 27 to page 27, line 5 (claim 8); page 27, lines 3-5 (claim 9); page 28, line 28 to page 29, line 4 (claim 10); page 27, lines 6-15 (claim 11); page 4, lines 24-27, and page 7, line 24 to page 8, line 2 (claims 12, 14, 16 and 18); and page 7, line 15 to page 8, line 22 (claims 13, 15, 17 and 19-20).

Applicants respectfully submit that new claims 8-20 are patentable over the art of record for at least the reasons given above.

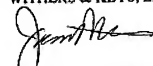
**III. Conclusion:**

Applicants respectfully submit that claims 1-20 define patentable subject matter. Accordingly, Applicants respectfully request allowance of these claims.

As noted in the attached Petition for Extension of Time, please charge Deposit Account No. 503025 in the amount of \$120 for a one month extension of time. No additional fees are believed due; however, the Commissioner is hereby authorized to charge any deficiency, or credit any overpayment, to Deposit Account No. 503025.

Should Examiner Poulos believe that anything further is necessary to place the application in better condition for allowance, Examiner Poulos is respectfully requested to contact Applicants' representative at the telephone number listed below.

Respectfully submitted,  
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